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Applicants: Nicholas J. Pinto ) Group Art Unit: 1723  
                  and Fouad M. Aliev )  
  ) Examiner: Joseph W. Drodge  
Application No.: 10/771,752 )  
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Filed: February 4, 2004 ) **DECLARATION OF NICHOLAS J.**  
  ) **PINTO**  
For: CONDUCTING POLYMER )  
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I, Nicholas J. Pinto, do hereby state:

1. I am a professor in the Department of Physics and Electronics at the University of Puerto Rico - Humacao Campus. I graduated from Montana State University with a Ph. D. in physics.
2. I am one of the two inventors of the subject matter set forth in the claims of this application. The other inventor, Prof. Fouad M. Aliev, is also a professor at the University of Puerto Rico - Rio Piedras Campus.
3. In August of 2002, we prepared a manuscript for publication in the Journal of Physics: Condensed Matter. We were assisted in the preparation of this article by Mr. Manuel R. Bengoechea, who is a graduate student. For this reason, Mr. Bengoechea was included as one of the authors of the manuscript. This was eventually published on or about

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October 19, 2002, under the title "Effects of confinement on the phase separation in emeraldine base polyaniline cast from 1-methyl-2-pyrrolidinone studied via dielectric spectroscopy."

4. Although Mr. Bengoechea was properly named as an author in the mentioned publication, he was not included as an inventor in this case. The subject matter that is claimed in this application was invented by myself and Prof. Aliev and not by Mr. Bengoechea.
5. I am aware that the claims in this application have been rejected based in part upon U.S. Patent No. 6,753,041 to A. Pron et al. (hereinafter "Pron et al."), U.S. Patent No. 5,174,883 to C. Martin et al. (hereinafter "Martin et al.") and a publication titled "Effect of Solvents and Co-solvents on the Processibility of Polyaniline: I. Solubility and Conductivity studies," by Y. Cao, et al. (hereinafter "Cao et al.")
6. I have reviewed Pron et al. As the Examiner concedes, this reference teaches away from using NMP as a solvent because "NMP causes the material to become insulating."
7. I have also reviewed Cao et al. Contrary to the Examiner's arguments, this reference also teaches away from using NMP as a solvent. Specifically, as shown in Table 1 at page 188, the use of NMP yielded a film with a conductivity that

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would qualify for an insulator ( $10^{-4}$  S/cm). Indeed, this figure is  $10^6$  times lower than a number of other solvents disclosed by Cao et al., including m-cresol (300 S/cm). As explained in our patent application, the process taught by Cao et al. would permit phase segregation of PANiEB into LEB and PNB, which is why it becomes an insulator.

8. Finally, I have reviewed Martin et al. This reference, however, is directed to a different type of process that uses electrochemical constructions. It does not teach or fairly suggest phase separation by dissolving PANiEB in NMP.

9. All statements made herein of my own knowledge are true and all statements made on information and belief are believed to be true; and further these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. §1001.

Respectfully Submitted,

Date: 8/31/06

By: Nicholas J. Pinto  
Nicholas J. Pinto

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